

## **ABSTRACT**

A software library using a 3D graphics engine to produce a real time 3D particle explosion effect is provided. The particle explosion effect creation tool allows users to create their own particle explosion effect by defining their own shapes in a graphic file. Particles are driven by a particle system algorithm that is controlled by real-world attributes such as gravity, direction and dispersion. These attributes can be keyframed by the users within a video editing application to produce specific 3D Particle explosion effects such as transitions and filters on video or graphics.